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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,968	01/17/2002	Reinhold Holtkamp SR.	030502/0147	5426

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EXAMINER

HAAS, WENDY C

ART UNIT	PAPER NUMBER
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1661

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,968

Applicant(s)

HOLTKAMP, REINHOLD

Examiner

Wendy C Haas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>11/22/4</u> . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 8, 2004 has been entered.

Claim Rejections - 35 USC § 112, 1st paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Enablement

Claims 1-3 and 5-8 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for multi-florescent African Violet plants derived from the deposited material and methods using the same, does not reasonably provide enablement for multi-florescent African violets made by any other method. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement

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and whether any necessary experimentation is "undue." These factors include, but are not limited to: (A) The breadth of the claims; (B) The nature of the invention; (C) The state of the prior art; (D) The level of one of ordinary skill; (E) The level of predictability in the art; (F) The amount of direction provided by the inventor; (G) The existence of working examples; and (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

In the present case, the claims are broadly directed to all African violets comprising at least one leaf axil that produces more than one flower stem (A). The nature of the invention is a mutant African violet plant comprising a dominant, transmissible, genetic trait that produces plants that comprise at least one leaf axil that produces more than one flower stem (B). The prior art contains no African violet plants that comprise at least one leaf axil that produces more than one flower stem, nor does it teach or suggest any methods for producing an African violet plant that comprises at least one leaf axil that produces more than one flower stem (C). A person of skill in the art would not be able to mutate an African violet plant to produce at least one leaf axil that produces more than one flower stem without undue experimentation. A person of skill in the art would be able to produce an African violet plant comprising at least one leaf axil that produces more than one flower stem by crossing a plant grown from applicant's deposited seed with another African violet plant or by crossing any progeny of applicant's original multi-florescent African violet plant with an African violet plant containing a desirable trait (D). The art is unpredictable. Applicants' specification notes that the mutant multi-florescent trait was discovered in only one plant, 'SB 4-2 Muflo', grown from a group of 25,000 seeds that were exposed by NASA to cosmic radiation and zero gravity for a period of six years (E). The

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amount of direction provided by the inventor appears to be sufficient and is not significant to the analysis of this particular invention, as claimed (F). The specification contains working examples of known progeny of 'SB 4-2 Muflo' crossed with numerous African violet plants to create plants with the desired multi-florescent trait (G). Finally, the quantity of experimentation needed to make or use the invention based on the content of the disclosure is both very high and very low. It would take a very high quantity of experimentation to produce an African violet plant comprising at least one leaf axil that has the multi-florescent trait – applicant exposed 25,000 seeds to radiation and zero gravity for a period of six years with the help of the space program to transform one (1) plant with the multi-florescent trait. However, it would take a very low quantity of experimentation to create a multi-florescent African violet plant by crossing 'SB 4-2 Muflo' or one of its progeny with an African violet plant that has other desirable traits, as the multi-florescent trait discovered appears to be dominant and stably transmissible (H). The WANDS factors, having been weighed, support the determination of non-enablement for the claimed scope since the skilled artisan would have to engage in undue trial and error experimentation to produce an African violet plant comprising at least one leaf axil that has the multi-florescent trait.

Written Description

Claims 1-3 and 7 remain rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims are drawn to any viable African violet

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seeds and/or plants with more than one inflorescence per leaf axil. In analyzing whether the written description requirement is met for genus claims, it is first determined whether a representative number of species have been described by their complete structure. (It is not realistic to expect that the "complete structure" of a plant, or even a cell, could be described. Therefore the inquiry required by this portion of the written description guidelines is interpreted to be whether the phenotype of the claimed plant has been described.)

In this case, the few disclosed embodiments are not representative of the enormous number of products claimed. The claims encompass all African violet plants with a particular inflorescence architecture, regardless of its origin, all African violet plants produced by cross breeding with plants exhibiting a particular inflorescence architecture, and all seeds or plants grown from some deposited seeds. Plants have many phenotypical traits, which vary independently, so millions of possible phenotypes are possible and claimed. The specification discloses only a few specific multi-florescent African Violet plants but not the heterozygous population claimed.

Next, it is determined whether a representative number of species have been sufficiently described by other relevant identifying characteristics. It is not possible to adequately describe the claimed products because the cross of a hybrid plant gives rise to a heterozygous population. One skilled in the art would not be able to predict all of the resulting phenotypes. The limited disclosure in the specification is not deemed sufficient to reasonably convey to one skilled in the art that Applicants were in possession of the huge genera recited in the claims at the time the application was filed. Thus, it is concluded that the written description requirement is not satisfied for the claimed genera.

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This rejection could be overcome by limiting the claims to the deposited seeds, plants grown therefrom and their asexually propagated progeny.

Applicant traversed this rejection in response to the first Office Action, and noted that, to date, “traditional breeding techniques failed to produce African Violet cultivars that stably produced more than one flower stem from one leaf node.” The Examiner’s search of the prior art confirms this; however, Applicant has invented multi-florescent African Violets *produced by a specific method* and should not be permitted to claim all multi-florescent African Violets produced by any method, as it is impossible to predict whether or not multi-florescent African Violets could be developed by an alternate, non-obvious method during the patent term of the instant claims.

Further, as noted above, some plants that would fall under the scope of the present claims may fall outside the scope of what is reasonably capable of anticipation.

Allowable Subject Matter

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following claims are suggested:

-- An African Violet plant comprising at least one leaf axil that produces more than one flower stem wherein the plant is produced from seeds having ATCC deposit Accession No. PTA-3982.

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A method of producing an African Violet plant having at least one leaf axil with more than one flower stem and a second desirable trait, the method comprising the steps of crossing, as the male or female parent, a first African violet plant that has ATCC deposit Accession No. PTA-3982 as its seed or pollen parent and that has at least one leaf axil with more than one flower stem, with a second African Violet plant having a second desirable trait but only 1 flower stem on any leaf axil, and selecting progeny that have at least one leaf axil with more than one flower stem and the second desirable trait.--

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Future Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wendy C. Haas whose telephone number is (571) 272-0976. The examiner can normally be reached on Monday through Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571) 272-0811. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

W. C. Haas


ANDREW WANG
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